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Wang et al.

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(54) PORTABLE ELECTRONIC DEVICE WITH TWO-PIECE HOUSING

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This patent is subject to a terminal dis-

claimer.

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- **U.S. Cl.** **361/679.56**; 361/679.55; 361/752; 455/575.1
- (58) **Field of Classification Search** 361/679.01, 361/816, 818, 679.56, 679.55; 174/35 R,

See application file for complete search history.

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(57)ABSTRACT

Portable electronic devices are provided. Each device may be formed from two parts. A first part may be provided with components such as a display, a touch screen, a cover glass, and a frame. A second part may be provided with a plastic housing, circuit boards containing electrical components, and a bezel. Engagement members may be connected to the first and second parts. The engagement members may be formed from metal clips with holes and springs with flexible spring prongs that mate with the holes in the clips. The metal clips may be welded to frame struts on the frame and the springs may be welded to the bezel. During assembly, the first part may be rotated into place within the second part. Retention clips attached to the frame may be used to secure the two parts together. Assembly instructions and associated connector numbers may be provided within the devices.

31 Claims, 28 Drawing Sheets

